

Notice of Allowability

Application No.

10/604,455

Examiner

Pierre M. Vital

Applicant(s)

KARABATSOS, CHRIS

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/22/03.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 22 July 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) °
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 7/22/03 °
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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Art Unit 2188

DETAILED ACTION

1. This Office Action is in response to Application No. 10/604,455 filed July 22, 2003. Claims 1-16 are pending in this application.
2. The specification and the claims have been examined with the results that follow.

Allowable Subject Matter

3. Claims 1-16 are allowed over the prior art of record.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:

Although Conkle (5,666,322) discloses a system having a plurality of memory banks for controlling data input and output from and to data lines, the reference does not teach or suggest "a strobe MUX and latch subsystem which generates a memory bank strobe signal having a first frequency, and which is synchronized to memory bank data signals with a 90 degree phase shift during a write operation, and which generates a system bus strobe signal having a second frequency which is synchronized to, and in phase with, a system bus data signals during a read operation" in combination with the other elements set forth in the claimed invention. Instead, the reference teaches "by multiplying the frequency of the same clock signal that is applied to both memory bank integrated circuit 110 and 112, for example doubling or tripling the clock frequency". See col. 4, lines 16-26.

Kim (6,526,473) does not teach or suggest "a strobe MUX and latch subsystem which generates a memory bank strobe signal having a first frequency, and which is synchronized to memory bank data signals with a 90 degree phase shift during a write operation, and which generates a system bus strobe signal having a second frequency which is synchronized to, and in phase with, a system bus data signals during a read operation" in combination with the other elements set forth in the claimed invention. Instead, the reference teaches "when a predetermined preamble interval, i.e., 1 clock cycle, passes after a read command is input, i.e., a signal /READ is activated, an external data strobe signal /DS is activated low. In a $\frac{1}{4}$ clock cycle after a write command is input, i.e., a signal /WRITE is activated, the connection control signal /FSEi is enabled to low. See col. 10, lines 1-22.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre M. Vital whose telephone number is (703) 306-5839. The examiner can normally be reached on Mon-Fri, 8:30 am - 6:00 pm, alternate Friday off.

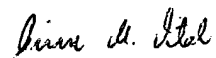
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (703) 306-2903. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

September 2, 2004


Pierre M. Vital
Examiner
Art Unit 2188